

A NEW SPECIES OF *MAYETIOLA*  
(DIPTERA: CECIDOMYIIDAE) ON  
AMERICAN BEACHGRASS IN NEW JERSEY<sup>1</sup>

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ABSTRACT: A new species of gall midge related to the Hessian fly is described. The new midge, *Mayetiola ammophilae* Gagné, occurs on American Beachgrass, *Ammophila breviligulata* Fernald, an important dune grass of the Atlantic seaboard.

DESCRIPTORS: Cecidomyiidae; *Mayetiola ammophilae* n. sp.; American Beachgrass.

Until now, *Mayetiola* (sensu stricto) has been known in North America from a single species, *M. destructor* (Say), the Hessian fly.<sup>3</sup> That species is thought to have been introduced to this continent during the Revolutionary War period. Over 25 species of *Mayetiola* are known from Europe on many different kinds of grasses, so it appeared that the genus did not naturally occur in the Nearctic area. Recently, Dr. P.M. Halisky of Rutgers, New Brunswick, New Jersey, reared a series of a new species of *Mayetiola* from American Beachgrass, *Ammophila breviligulata* Fernald, in New Jersey. Possibly this gall midge occurs also on *Ammophila* in Europe and is a recent immigrant, but no *Mayetiola* has been recorded from European Beachgrass.

The new species feeds in the stem bases of Beachgrass and causes rot and breakage. Dr. Halisky is preparing an article on the biology of the new species.

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<sup>3</sup> *Mayetiola* in Stone et al. (1965, Agr. Handbook 267: 263) is a category of convenience.

*Mayetiola ammophilae* Gagné', new species

**Adult.** Wing length: ♂ 3.0-3.2 mm.; ♀, 2.8-2.9 mm. Antenna with 16-17 flagellomeres in ♂, 16 in ♀. Claws with short teeth. Empodia much longer than claws. Male genitalia as in figures 1-3. Female tergum VIII (fig. 4) approximately 1/2 length distal half of ovipositor.

**Pupa.** Prothoracic setae short, approximately 3/5 length of prothoracic spiracle.

**Larva.** Sternal spatula short, tapering apically to single point.

**Holotype,** ♂, reared from beachgrass, *Ammophila breviligulata*, Island Beach State Park, Ocean Co., New Jersey, VII-1974, P.M. Halisky, USNM Type No. 66623. Paratypes: ♀, 2 pupae, same data as holotype; 4♂♂, 7♀♀, same data except VI to VII-1972. Other material: 10 larvae, 20 puparia, same data as holotype. All material in USNM except 1♂, 1♀ paratypes in British Museum (N.H.).

*M. ammophilae* differs from *M. destructor*, the only other *Mayetiola* (s.s.) in North America, in the following characters: the tarsal empodia are much longer than the claws; the male genitalia have characteristic differences (compare figs. 1-3 with 5-6), particularly in the elongate telomeres, apically bifid aedeagus, and deeply lobed sternum X; tergum VIII of the female is more setose; the length of the pupal prothoracic setae is 3/5 that of the prothoracic spiracle instead of the opposite case in *destructor*; and the larval sternal spatula is simple at the apex and not bifid.

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Figs. 1-4, *M. ammophilae*. 1, male genitalia (dorsal); 2, same (ventral); 3, same, without parameres (mesal); 4, female abdominal tergum VIII. Fig. 5-6, *M. destructor*: 5, male genitalia (dorsal); 6, same (ventral).

